

the ordinary 'stock cards' furnished by firms for card catalogue purposes. In large quantities they should be obtained in this way ruled, cut, and printed, for \$1.35-\$1.50 per M.

It is often desirable to have a bird's-eye view of the numbers of birds of each species observed each day in order to study relative dates of arrival and departure, relative abundance, etc. For this purpose I keep on a simple system of quadrille rulings the numbers of the birds of each species seen or heard each day and nothing more, these same numbers appearing on the cards in amplified form in case such species have also been given card records. It frequently happens that enough data are not collected on a given species to entitle it to a card record. To illustrate, if a Hawk were seen flying overhead too far away to determine condition of plumage, stage of moult, etc., and admitting of no note other than a mere record of its occurrence, this record would be placed on the quadrille ruled sheet, and not entered upon a card. I may, at some future date, explain to the readers of 'The Auk' my method of keeping these quadrille ruled sheets.

NOTES ON THE BLACK RAIL OF CALIFORNIA.

BY WILLIAM BREWSTER.

UNDER the name *Porzana Jamaicensis*, var. *coturniculus* Baird¹ Mr. Ridgway, in 1874, described² a Rail said to have been obtained on the Farallones off the coast of California and to differ "from var. *Jamaicensis* of southeastern United States, West Indies and South America, in smaller size, and more uniform colors," the back

¹The name and its authority were thus written originally by Mr. Ridgway. They have since appeared in print in various forms, as *Porzana jamaicensis coturniculus* Baird (Ridgway, Proc. U. S. Nat. Mus., III, 1880, 202, 222), *Porzana jamaicensis*, var. *coturniculus*, "Baird MS." (Baird, Brewer, and Ridgway, Water Birds of North America, I, 1884, 378), *P. jamaicensis coturniculus* Baird (Ridgway, Manual of North American Birds, 1st ed., 1887, 140), *P. coturniculus* Baird (*Ibid.*, 2d ed., 1896, 140), and *Porzana coturniculus* (Ridgw.), (A. O. U Check-List, 2d ed., 1895, 80).

²American Naturalist, VIII, 1874, p. 111.

being "without white specks." As no additional specimens at all closely resembling the type have since been reported and as the surf-swept Farallones possess no marshes and are otherwise wholly unsuited for the abiding place of any species of Rail, it has come to be questioned if Mr. Ridgway's bird was really taken there — or indeed anywhere in North America. Until very recently Little Black Rails from whatever locality have been so very rare in collections that it has been impossible to bring together a sufficient number of them to show the general range of individual, seasonal and geographical variation to which the species is subject. For this reason the status as well as the habitat of the form *coturniculus* has remained involved in much doubt.

Within the past few years, however, Black Rails which thus far have been called *jamaicensis* have been found abundantly in a few localities on or near the coast of California whence I have received no less than twenty-six of their skins, of which twenty-two were collected by Mr. C. A. Allen at Point Reyes. On comparing these specimens with a somewhat smaller number taken east of the Rocky Mountains I have become convinced that the Black Rail of California is at least subspecifically distinct from that of the eastern United States. The latter has always been regarded as true *jamaicensis*, a ruling which I have no present disposition to challenge, for the only specimen that I have seen from the type locality of the species, Jamaica, appears to differ from the bird of the Atlantic coast region of North America only in having decidedly shorter wings, while it is probable that these were much longer originally, for the tips of the primaries are ragged and apparently rather badly worn.

The type of *coturniculus* has been considered remarkable for its diminutive size, for the extreme attenuation of its bill and for the sparseness—or rather restriction—of the white spotting on its upper parts. Although its back has been described as "without white specks" I have found a very few of them scattered among the interscapular feathers, and they are numerous and rather conspicuous on some of the scapulars and upper tail coverts. It would be more accurate, therefore, to say that the central portion of the back are so slightly spotted as to appear almost immaculate. In this respect, as Mr. Ridgway has pointed out (Proc. U. S. Nat. Mus. XIII, 1890, 311), the type of *coturniculus* resembles *P.*

silonota (Gould) and *P. sharpei* (Rothsch. and Hart.) of the Galapagos Islands. I have seen no example of true *silonota*, but two specimens of *sharpei* (from Indefatigable Island) before me have bills quite as stout as those of typical representatives of *jamaicensis*. For this reason I considered it improbable that either of the Galapagos birds can have any very close relationship with the extremely slender-billed type of *coturniculus*.

The majority of my California specimens of the Black Rail are even smaller than the type of *coturniculus* and at least two of them have equally slender bills. In regard to the white markings of their upper parts they vary considerably with age and to a less degree individually. Several birds have the back only sparsely and obscurely spotted, but in no one of them is it so nearly immaculate as in the type of *coturniculus*. Those with the least amount of white are all young, as is the case with my eastern specimens, also. I do not find that there is any constant or even average difference between west and east coast birds with respect to this spotting.

In the light of the evidence just given it seems to me safe to conclude that the specimen of the so-called Farallone Rail, hitherto regarded as unique, is nothing more nor less than a somewhat aberrantly marked but otherwise quite typical, immature representative of the Black Rail which inhabits the mainland of California and is by no means uncommon there — at least locally. This strongly characterized form should therefore bear the name *coturniculus*.

If my view of the matter as above stated be correct it is no longer surprising that the type of *coturniculus* was obtained on the Farallones, for these rocky islands lie due south of, and only about twenty miles distant from, Point Reyes where, as we now know, the California Black Rail occurs numerously in autumn. I am not aware that it has been found breeding in the marshes on this promontory although that it may do so, at least sparingly, seems probable; nor have I knowledge that it ever frequents them in winter. Indeed, the only definite evidence that I possess respecting its seasonal occurrence there is that afforded by letters received from Mr. Allen and by specimens of the birds which he has sent

me. The dates on which the latter were taken range from October 24 to November 26, 1897.

The Black Rails which inhabit the eastern United States and Jamaica may be easily distinguished from those found in California by the following characters:—

Porzana jamaicensis (Gmel.).

BLACK RAIL.

Larger with stouter deeper bill; the chestnut brown of the upper parts chiefly confined to the nape and nearly or quite wanting on the crown which is plain dark plumbeous or slaty, seldom if ever tinged with chestnut brown even in young birds.

Habitat. West Indies (Jamaica and Cuba) and eastern United States, ranging as far north as Massachusetts and Illinois, as far west as western Kansas. Said to inhabit Middle and South America also.

Porzana jamaicensis coturniculus Ridgway.

CALIFORNIA BLACK RAIL.

Smaller with much slenderer bill; the plumbeous of the under parts deeper, the chestnut brown of the upper parts brighter and more extended, forming a broader patch on the nape and tinging more or less strongly and generally much of the top of the head where there is often no pure unmixed plumbeous or slaty save on the forehead.

Habitat. Coast region of California, occurring abundantly just to the north of San Francisco.

Porzana jamaicensis (Gmel.).

No.	Sex	Locality and Date	Wing	Tar- sus	Culmen from feathers	Depth of bill at base of nostril
3923 ¹	♂	Salem, N. J., June —, 1857,	3.00	.87	.52	.22
48733 ¹	♂	Mt. Pleasant, S. C., Nov. 9, 1906,	2.90	.87	.51	.21
46671 ¹	♂	Key West, Fla., Mch. 11, 1890,	3.05	.91	.57	.24
673 ²	♂	Merrits Inlet, Fla. Apr. 10, 1886,	2.95	.93	.57	.21
674 ²	♂	Cook Co., Ill., May 29, 1885,	2.82	.87	.50	.23
Average			2.94+	.89	.53+	.22+
48695 ¹	♀	Key West, Fla., Apr. 5, 1900,	3.08	.92	.53	.21
11896 ³	♀	Tortugas, Fla., Spring, 1859,	2.91	.85	.54	.22

¹ Collection of William Brewster.

² Collection of E. A. and O. Bangs.

³ Collection of U. S. Nat. Museum.

No.	Sex	Locality and Date	Wing	Tar- sus	Culmen from feathers	Depth of bill at base of nostril
188738 ²	♀	Dade Co., Fla., Nov. 12, 1901,	3.05	.92	.54	.22
26825 ²	♀	near Spanishtown, Ja., Aug. —, 1862,	2.67	.90	.56	.23
Average			2.93—	.90—	.54+	.22
			July or			
48492 ¹	?	Plymouth Harbor, Mass., { Aug., 1869,	3.04	.85	.55	.25
78384 ²	?	Washington, D. C., June 6, 1879,	2.97	.85	.58	.20
97717 ²	?	Piscataway, Md., Sept. 25, 1877,	2.90	.90	.55	.20
149791 ²	?	Rappahannock R., Va., Oct. —, 1906,	2.95	.85	.53	.20
191765 ²	?	Northampton Co., Va., Oct. 14, 1904,	2.95	.85	.53	.21
103588 ²	?	off Pensacola, Fla., Mar. 10, 1885,	2.90	.90	.50	.20
41898 ³	?	western Kansas, Aug. 25, 1865,	2.98	.90	.61	.22
27505 ³	?	Neosho Falls, Kansas, ————	3.02	.83	.53	.21
Average			2.96+	.87—	.55—	.21+
Total average			2.95—	.88+	.54+	.22—

Porzana jamaicensis coturniculus Ridgw.

No.	Sex	Locality and Date	Wing	Tar- sus	Culmen from feathers	Depth of bill at base of nostril
3924 ¹	♂	———, Cal., Jan. —, 1874,	2.63	.79	.58	.17
47680 ¹	♂	Point Reyes, " Oct. 24, 1897,	2.65	.80	.57	.19
47681 ¹	♂	" " " " " "	2.60	.85	.55	.16
47682 ¹	♂	" " " Nov. 9, "	2.66	.85	.59	.14
47683 ¹	♂	" " " " " "	2.72	.85	.52	.19
47684 ¹	♂	" " " " 26, "	2.60	.82	.56	.20
47685 ¹	♂	" " " " " "	2.70	.85	.54	.19
47686 ¹	♂	" " " " " "	2.64	.83	.58	.19
47687 ¹	♂	" " " " " "	2.70	.81	.60	.21
Average			2.65+	.83—	.56+	.18+
47688 ¹	♀	Point Reyes, Cal., Oct. 24, 1897,	2.71	.81	.55	.19
47689 ¹	♀	" " " " " "	2.70	.84	.52	.20
47690 ¹	♀	" " " Nov. 9, "	2.55	.78	.51	.17
47691 ¹	♀	" " " " 25, "	2.55	.77	.52	.20
47692 ¹	♀	" " " " " "	2.60	.70	.52	.17
47693 ¹	♀	" " " " " "	2.59	.76	.50	.16

¹ Collection of William Brewster.² Collection of U. S. Nat. Museum.³ Collection of Mus. Comp. Zoölogy.

No.	Sex.	Locality and Date						Wing	Tar- sus	Culmen from feathers	Depth of bill at base of nostril
47694 ¹	♀	Point Reyes, Cal.,	Nov. 25,	1897			2.59	.77	.54	.19	
47695 ¹	♀	"	"	"	"	"	2.59	.74	.54	.20	
47696 ¹	♀	"	"	"	"	"	2.60	.81	.53	.17	
47697 ¹	♀	"	"	"	"	"	2.63	.76	.50	.19	
47698 ¹	♀	"	"	"	"	"	2.68	.78	.52	.18	
47699 ¹	♀	"	"	"	"	"	2.65	.83	.50	.21	
47700 ¹	♀	"	"	"	"	"	2.61	.76	.50	.19	
47701 ¹	♀	"	"	"	"	26,	2.53	.77	.53	.18	
3925 ¹	♀	San Francisco,	"	"	—,	1874,	2.53	.78	.52	.17	
Average							2.61—	.78—	.52	.18+	
45815 ¹	?	Alvisco, Cal.,	Dec. 1,	1892,			2.50	.78	.52	.20	
45816 ¹	?	"	"	"	"	"	2.59	.79	.54	.17	
Average							2.54+	.78+	.53	.18+	
Total average							2.62—	.79+	.54—	.18+	

Type of *coturniculus*.

12862 ²	?	Farallones, Cal.,	"Registered"							
				Oct. 13,	1859,		2.73	.75	.52	.16

If I have dealt at all satisfactorily and conclusively with the matters considered in this article my success has been due very largely to the assistance so kindly given me by the officers of the Smithsonian Institution who, with characteristic liberality, have placed quite at my disposal the entire series of Black Rails contained in the collections under their charge. I am also indebted to my friend Mr. Outram Bangs for an opportunity of examining specimens from his collection which have proved of great service. Had it not been for the free use which I have been permitted to make of all this material, and especially of the precious type of *coturniculus*, I should have been utterly unable to cope with what has been long and justly considered a peculiarly difficult problem.

¹ Collection of William Brewster.² Collection of U. S. Nat. Museum.